ABSTRACT OF THE DISCLOSURE

An epicyclic gear system has a sun gear, a ring gear located around the sun gear, and planet gears located between and engaged with sun and ring gears. In addition, it has a carrier including a carrier flange that is offset axially from the planet gears, and carrier pins that project from the carrier flange into the planet gears, each with a shank anchored to the flange and a head remote from the flange. Between the planet gears and the carrier pins are double row tapered roller bearings, so that the planet gears rotate on the pins. Each bearing includes an inner race having tapered raceways presented away from the carrier pin, opposing tapered raceways on the planet gear, and tapered rollers organized in two rows between the raceways. Whereas the carrier pin is cantilevered from the carrier flange, the inner race is cantilevered from the head of carrier pin. In operation, the pins will deflect in one direction under torque applied to the carrier and resisted by the planet gears, and the inner races will deflect in the opposite direction, so that the axes about which the planet gears rotate remain parallel to the central axis of the system. The pins may have grooves to enhance their deflection.